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RAW SEQUENCE LISTING   DATE: 07/17/2002
PATENT APPLICATION: US/10/040,906A   TIME: 13:48:32

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 1 <110> APPLICANT: Arnaut, Greta
 2         Boets, Annemie
 3         Vanneste, Stijn
 4         Van Rie, Jeroen
 5         Van Houdt, Sara
 6 <120> TITLE OF INVENTION: Novel Bacillus thuringiensis insecticidal proteins
 7 <130> FILE REFERENCE: 58764.000036
 8 <140> CURRENT APPLICATION NUMBER: US/10/040,906A
 9 <141> CURRENT FILING DATE: 2002-06-24
10 <160> NUMBER OF SEQ ID NOS: 9
11 <170> SOFTWARE: PatentIn version 3.1
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30                        35                  40                  45
31        tat gta gct cct ata gtc gga act gtt tct agc ttt ctg cta aag aag    192
32        Tyr Val Ala Pro Ile Val Gly Thr Val Ser Ser Phe Leu Leu Lys Lys
33                50                  55                  60
34        gtg ggg agt ctt att gga aaa agg ata ttg agt gaa tta tgg ggg tta    240
35        Val Gly Ser Leu Ile Gly Lys Arg Ile Leu Ser Glu Leu Trp Gly Leu
36        65                  70                  75                  80
37        ata ttt cct agt ggt agc aca aat cta atg caa gat att tta agg gag    288
38        Ile Phe Pro Ser Gly Ser Thr Asn Leu Met Gln Asp Ile Leu Arg Glu
39                        85                  90                  95
40        aca gaa caa ttc cta aat caa aga ctt aat aca gac act ctt gcc cgt    336
41        Thr Glu Gln Phe Leu Asn Gln Arg Leu Asn Thr Asp Thr Leu Ala Arg
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43        gta aat gcg gaa ttg gaa ggg ctg caa gcg aat ata agg gag ttt aat    384
44        Val Asn Ala Glu Leu Glu Gly Leu Gln Ala Asn Ile Arg Glu Phe Asn
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45              115                 120                 125
46    caa caa gta gat aat ttt tta aat cct act caa aac cct gtt cct tta    432
47    Gln Gln Val Asp Asn Phe Leu Asn Pro Thr Gln Asn Pro Val Pro Leu
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49    tca ata act tct tca gtt aat aca atg cag caa tta ttt cta aat aga    480
50    Ser Ile Thr Ser Ser Val Asn Thr Met Gln Gln Leu Phe Leu Asn Arg
51    145                 150                 155                 160
52    tta ccc cag ttc cgt gtg caa gga tac caa ctg tta tta tta cct tta    528
53    Leu Pro Gln Phe Arg Val Gln Gly Tyr Gln Leu Leu Leu Leu Pro Leu
54                  165                 170                 175
55    ttt gca cag gca gcc aat atg cat ctt tct ttt att aga gat gtt gtt    576
56    Phe Ala Gln Ala Ala Asn Met His Leu Ser Phe Ile Arg Asp Val Val
57                  180                 185                 190
58    ctc aat gca gat gaa tgg gga att tca gca gca aca tta cgt acg tat    624
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61    caa aat tat ctg aaa aat tat aca aca gag tac tct aat tat tgt ata    672
62    Gln Asn Tyr Leu Lys Asn Tyr Thr Thr Glu Tyr Ser Asn Tyr Cys Ile
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71    Ser Ile Trp Ser Leu Phe Lys Tyr Gln Ser Leu Leu Val Ser Ser Gly
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75              275                 280                 285
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81    305                 310                 315                 320
82    cct aat att ggt ggt tta cct ggt act act aca act cac gca ttg ctt    1008
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86    Ala Ala Arg Val Asn Tyr Ser Gly Gly Val Ser Ser Gly Asp Ile Gly
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88    gct gtg ttt aat caa aat ttt agt tgt agc aca ttt ctc cca cct ttg    1104
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91    tta aca cca ttt gtt agg agt tgg cta gat tca ggt tca gat cga ggg    1152
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97          tta ggt tta agg tgt ggt gct ttt aca gct cgt ggt aat tca aac tat    1248
98          Leu Gly Leu Arg Cys Gly Ala Phe Thr Ala Arg Gly Asn Ser Asn Tyr
99                          405                 410                 415
100          ttc cca gat tat ttt atc cgt aat att tca gga gtt cct tta gtt gtt   1296
101          Phe Pro Asp Tyr Phe Ile Arg Asn Ile Ser Gly Val Pro Leu Val Val
102                      420                 425                 430
103          aga aat gaa gat tta aga aga ccg tta cac tat aat gaa ata aga aat   1344
104          Arg Asn Glu Asp Leu Arg Arg Pro Leu His Tyr Asn Glu Ile Arg Asn
105                  435                 440                 445
106          ata gaa agt cct tca gga aca cct ggt gga tta cga gct tat atg gta   1392
107          Ile Glu Ser Pro Ser Gly Thr Pro Gly Gly Leu Arg Ala Tyr Met Val
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109          tct gtg cat aat aga aaa aat aat atc tat gcc gtg cat gaa aat ggt   1440
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112          act atg att cat tta gcg ccg gaa gat tat aca gga ttc acc ata tcg   1488
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115          ccg ata cat gca act caa gtg aat aat caa acg cga aca ttt att tct   1536
116          Pro Ile His Ala Thr Gln Val Asn Asn Gln Thr Arg Thr Phe Ile Ser
117                      500                 505                 510
118          gaa aaa ttt gga aat caa ggt gat tcc tta aga ttt gaa caa agc aac   1584
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121          acg aca gca cgt tat aca ctt aga gga aat gga aat agt tac aat ctt   1632
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137          Thr Phe Asn Ser Gly Thr Gln Phe Glu Leu Met Asn Ile Met Phe Val
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153              35                  40                  45
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155          50                  55                  60
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157      65                  70                  75                  80
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198       Leu Gly Leu Arg Cys Gly Ala Phe Thr Ala Arg Gly Asn Ser Asn Tyr
199                   405                    410                    415
200       Phe Pro Asp Tyr Phe Ile Arg Asn Ile Ser Gly Val Pro Leu Val Val
201                   420                    425                    430
202       Arg Asn Glu Asp Leu Arg Arg Pro Leu His Tyr Asn Glu Ile Arg Asn
203           435                    440                    445
204       Ile Glu Ser Pro Ser Gly Thr Pro Gly Gly Leu Arg Ala Tyr Met Val
205           450                    455                    460
206       Ser Val His Asn Arg Lys Asn Asn Ile Tyr Ala Val His Glu Asn Gly
207       465                    470                    475                    480
208       Thr Met Ile His Leu Ala Pro Glu Asp Tyr Thr Gly Phe Thr Ile Ser
209                   485                    490                    495
210       Pro Ile His Ala Thr Gln Val Asn Asn Gln Thr Arg Thr Phe Ile Ser
211                   500                    505                    510
212       Glu Lys Phe Gly Asn Gln Gly Asp Ser Leu Arg Phe Glu Gln Ser Asn
213           515                    520                    525
214       Thr Thr Ala Arg Tyr Thr Leu Arg Gly Asn Gly Asn Ser Tyr Asn Leu
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221           580                    585                    590
222       Asn Val Val Ala Ser Asp Asn Thr Asn Val Pro Leu Asp Ile Asn Val
223           595                    600                    605
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